

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today
(1) was not written for publication in a law journal and
(2) is not binding precedent of the Board.

Paper No. 10

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte LLOYD ENGELBRECHT,
LEONARD SCHUCHMAN, AND
RONALD BRUNO

Appeal No. 95-4207
Application 08/073,442¹

ON BRIEF

Before URYNOWICZ, THOMAS, and KRASS, Administrative Patent Judges.

THOMAS, Administrative Patent Judge.

¹ Application for patent filed June 8, 1993. According to appellants, the application is a continuation-in-part of Application 07/598,396, filed October 18, 1990.

DECISION ON APPEAL

Appellants have appealed to the Board from the examiner's final rejection of claims 1 to 26, which constitute all the claims in the application.

Representative claim 1 is reproduced below:

1. A digital audio broadcast (DAB) system, comprising:

a master DAB radio broadcast station located at a main predetermined terrestrial location for formatting and broadcasting a plurality of channels of digitized program data in a spread spectrum, time and frequency hopping waveform to remote mobile and stationary receivers,

a plurality of relatively low power DAB range extension radio broadcast stations, each said range extension DAB station being located in respective terrestrial areas having selected population densities and each range extension DAB station having means to receive and store (delay) one or more channels of program information from said master DAB station,

a separate program distribution system coupling said means to receive and store at each of said range extension DAB radio broadcast station with said master DAB radio broadcast station,,[sic] and

means to synchronize channels of digital data re-broadcast from each of said range extension DAB radio broadcast stations with broadcasts from said master DAB radio broadcast station such that a mobile receiver traveling between edges of reception of two or more low power range

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extension DAB radio broadcast stations does not evidence interference therebetween.

The following references are relied on by the examiner:

Pommier et al. (Pommier)	4,881,241	Nov. 14, 1989
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Kotzin et al. (Kotzin)	5,301,188	Apr. 5, 1994
	(effective filing date Feb. 27, 1990)	

Noreen et al. (Noreen)	5,303,393	Apr. 12, 1994
	(filing date Apr. 12, 1991)	

Claims 1 to 3, 5, 6, 8, 19 to 21, 23, 24 and 26 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Noreen. The remaining claims are rejected under 35 U.S.C. § 103. As evidence of obviousness, the examiner relies on Noreen alone as to claims 9, 10 to 13 and 15 to 18, with the addition of Pommier as to claims 4, 14 and 22. The examiner also considers Noreen in view of Kotzin as evidence of obviousness of claims 7, 17 and 25.

Rather than repeat the positions of the appellants and the examiner, reference is made to the brief and the answer for the respective details thereof.

OPINION

We reverse the four art rejections concerning this appeal.

We do not agree with the examiner's correlation of features disclosed in Noreen under 35 U.S.C. § 102 and § 103 as applied by the examiner in the statement of the rejection of the pending claims in the final rejection on which the examiner relies. Our study of Noreen leads us to agree with appellants' general arguments made at pages 4 through 6 of the brief that the examiner's approach appears to correlate certain features of the claims without regard as to functionality or equivalence in Noreen.

More specifically, turning initially to the broadest claim on appeal, claim 19, we are mindful of the examiner's reliance upon the subject matter recited in Noreen's claim 11 at the end of column 16 of his patent that the so-called data-

transmitter means recited includes a spread spectrum modulator. In the context of claim 11 as it relates to its parent independent claim 1 in Noreen, the stated data-transmitter means is a transmitter in the mobile station of Noreen. Figures 2, 3A, 3B, 3E and 4 of Noreen indicate the capability of Noreen's mobile user terminals 107/109 in Figure 1 to transmit back to the satellite 105 data responses. However, the discussion at column 9, lines 43 through 62 as it relates to Figure 3E and the discussion at column 12, lines 54 through 62 as it relates to Figure 4 in Noreen both indicate to us that a single carrier signal is sent back to the satellite with data from the user/mobile terminal. This indicates in the art that there is only a single channel of data transmitted. In contrast, however, claim 19 requires the formatting of a plurality of channels of digitized program data. Thus, we must reverse the rejection of claim 19 under 35 U.S.C. § 102.

For similar reasons, the initial clause in the body of independent claims 1 and 11 on appeal, which are respectively rejected under 35 U.S.C. § 102 and § 103, requires

a similar plurality of channels formatting and broadcasting digitized program data in a spread spectrum, time and frequency hopping waveform format. Inasmuch as Noreen's only teaching that we are aware of and brought to our attention by the examiner of the spread spectrum modulator approach for data is in Noreen's claim 11 at the end of column 16, we cannot conclude within 35 U.S.C. § 102 that the spread spectrum features of independent claims 1 and 11 on appeal are also met.

We also reverse the rejection of claims 1 and 11 on appeal because the synchronization that is achieved in Noreen is achieved only by the data processing and control unit 223 in Figures 2 and 3B which is discussed at column 8, line 60 through column 9, line 20. There is no discussion at this location or any other figure or column in Noreen that we are aware of that relates to the synchronization of channels of a re-broadcast capability with broadcasts from the master station (such as broadcast station 115 in Figure 1) "such that a mobile receiver traveling between edges of reception of two or more low power range extension DAB radio broadcast stations

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does not evidence interference therebetween." There is no apparent discussion in Noreen of any interference between any user terminal 107, 109 and any plurality of satellites 105. As such there is no discussion of any need to synchronize anything with respect to edges of reception of any beams broadcast from these satellites 105 to the respective mobile user terminals 107, 109 to prohibit interference therebetween.

As to independent claim 10 we note that there is no recitation of spread spectrum modulation in the initial clause of the body of this claim. However, there is a recitation of satellite timing means to perform the synchronization function as set forth in the last clause of independent claims 1 and 11 on appeal as just discussed. There is no disclosed satellite timing means to perform this function in Noreen. We reach this conclusion even though we are well aware of the use of the GPS satellite system in various locations in Noreen, which is the same disclosed basis for the recitation of a satellite timing means in independent claim 10 on appeal. While appellants use the GPS satellite system for timing and

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synchronization among a plurality of locations, Noreen does not teach of utilizing the time synchronization capability of such satellites. On the other hand, Noreen only utilizes a GPS system for location and position determining capabilities of the remote, mobile user terminals 107 and 109.

Overall then, since we cannot agree with the examiner's position that independent claims 1 and 19 are anticipated by Noreen and that claims 10 and 11 would have been obvious over this reference, we reverse the rejection of the remaining, dependent claims listed in each separately stated rejection by the examiner. Since Pommier and Kotzin do not respectively cure the deficiencies already noted in Noreen, the respectively stated

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rejections relying upon these references must also be reversed. Therefore, the decision of the examiner rejecting various claims under 35 U.S.C. § 102 and § 103 is reversed.

REVERSED

STANLEY M. URYNOWICZ, JR.)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
JAMES D. THOMAS)	APPEALS AND
Administrative Patent Judge)	INTERFERENCES
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Administrative Patent Judge)	

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